ERGONOMICS

Safety Training Goal: Understanding ergonomics and why it is important.

1. Introduction.

Ergonomics is the science of matching tools and tasks to the work environment. In other words, ergonomics tries to make the job fit the worker, rather than making the worker fit the job. The purpose of ergonomics is to eliminate and/or reduce injuries and illnesses that can result from stress on the muscles, nerves, and joints.

2. Discussion.

a. Types of injuries.

(1) The most common type of ergonomically-related injuries are called musculoskeletal disorders, or sometimes cumulative trauma disorders (CTDs). These are also known as repetitive motion or stress disorders. These types of problems have been common to workplaces for a long time. They usually involve pain and damage to muscles, tendons, and nerves in the back, neck, shoulders, wrists, hands and elbows. Typical problems of this type include:

(a) Tendonitis.

(b) Tennis elbow.

(c) Low back pain.

(d) Carpal tunnel syndrome, which causes hands and wrists to tingle, ache, or become numb.

(e) Reynaud's Syndrome, which cause fingers to become white because not enough blood is circulating.

(2) These problems are usually caused by:

(a) Making the same motion over and over.

(b) Staying in the same position too long.

(c) Working in an awkward position that puts stress on muscles and joints.

(d) Working with tools that don't fit your body.

(e) Using a great deal of physical force.

(f) Exposure to heavy vibration over long periods of time.

(3) These types of injuries don't just happen to workers who do heavy physical jobs. They also happen to office workers, such as those who work at a computer for most of the day.

b. Preventing injuries.

(1) There are a number of ways to reduce or eliminate musculoskeletal disorders, including:

(a) Using two hands instead of one to perform a task. This helps reduce the stress on anyone part of the hand.

(b) Using the right tools for the job. This includes using lightweight tools, as well as tools that are ergonomically designed.

(c) Using power tools rather than manual tools reduces the amount of force required.

(d) Taking breaks from repetitive motion tasks by switching periodically to other tasks.

(e) Avoiding repeatedly awkward movements or positions.

(f) Wearing gloves to protect against pressure or excessive vibration.

(2) Personnel who spend a lot of time at computer workstations can take the following steps to avoid problems:

(a) The screen should be 16 to 25 inches away from your face, just below eye level, to reduce neck strain.

(b) The keyboard should be positioned so that wrists are in a neutral position.

(c) Sit with your back straight, hands and arms straight on the floor, and thighs horizontal.

(d) Adjust chair to accommodate personal necessities.

(e) Change positions, stretch, and take breaks periodically.

c. Treatment.

(1) Musculoskeletal disorders can be very serious. They cause pain, lost work time and productivity, and in extreme cases can cause permanent disability. Learn to recognize the possible symptoms in the hands, arms, neck, shoulders, and back:

(a) Pain and aches.

(b) Stiffness.

(c) Weakness.

(d) Numbness or tingling.

(e) Swelling.

(f) Burning sensation.

(2) Get medical attention for these symptoms immediately. Then follow the instructions for treatment. In addition, it may be desirable to make ergonomic changes in your work area or work habits. Staying in shape through regular exercise is often helpful in reducing the risks.

3. Conclusion.

There are two main ways to prevent ergonomic injuries and lessen their impact. One is to correctly use equipment and tools. The second is to modify work habits. Improve your posture. Pay attention to your body so you can correct ergonomic disorders as soon as you detect them. Learn to adjust chairs, keyboards, lighting and other controllable factors for maximum comfort and health.

What Is Ergonomics And Why Is It Important?

Ergonomics comes from the Greek words "ergon," meaning work, and "nomos," meaning "laws." So ergonomics literally means "the laws of work." A modern way of saying it is "designing the job, equipment and tools to fit the worker, and fitting the worker to the job."

The science of ergonomics was first defined in 1717, but only recently have its disorders attracted widespread attention as occupational health concerns.

Ergonomics covers all physical aspects of a job:

- **biomechanical**, including stress on the muscles, nerves, bones, tendons and joints;
- **sensory**, including hearing and vision;
- and **environmental**, including lighting, noise, temperature and humidity.

Ergonomic Problems

Ergonomic "stressors" (factors that can lead to disorders) include repetitive motions, excessive force, vibration, glare, poor air quality in an office and an awkward or prolonged posture.

In some cases, new technologies have created ergonomic concerns. For instance, the increased use (and misuse) of computer keyboards has contributed to a rise in wrist disorders. In fact, at least half of all reported ailments are cumulative trauma disorders, injuries from the gradual repetition of stresses that would not be harmful if performed once.

The most common ergonomic disorders are

- **carpal tunnel syndrome**, characterized by pain in the wrist from pressure on a nerve. Repetitive, frequent or unsupported wrist movements from an unnatural angle can inflame the wrist tendons and other tissues that press on the nerve.
- **back injuries** and **chronic back pain** from improper lifting or from attempting to lift heavy objects alone;
- **tennis elbow** and **tendinitis** from repeatedly and sharply twisting an arm in a jerky way;
- **neck strain** from incorrect posture or telephone use;
- **eye strain** from improper lighting or incorrect posture;
- **sick building syndrome** (rashes, headaches, fatigue, itchy eyes or congestion) from poor air quality in an office;
- **white finger disease** *(Raynaud's phenomenon)* from the destruction of blood vessels in the fingers.

Ergonomic Solutions

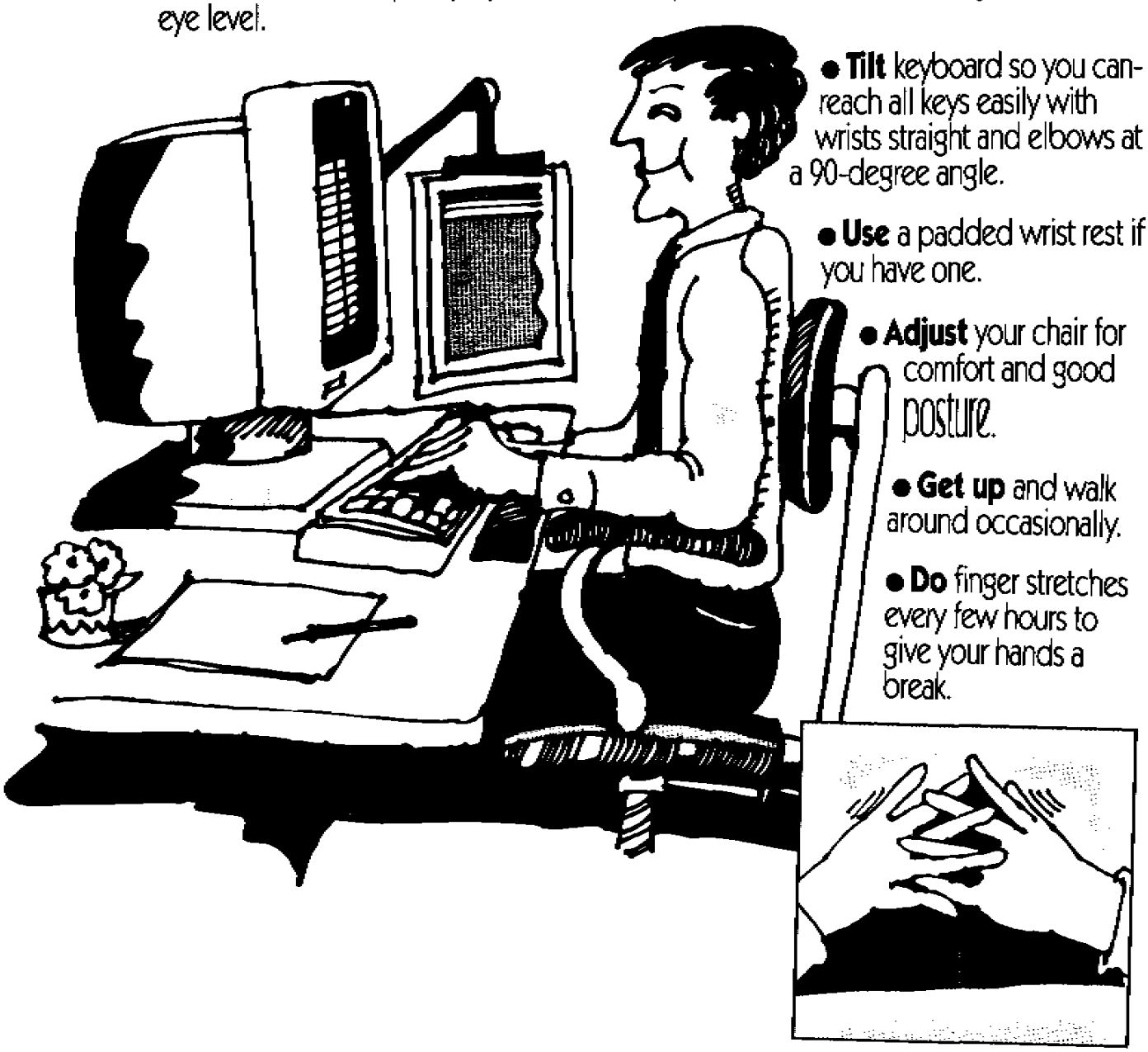
There are two main ways to prevent ergonomic injuries and to lessen their impact if they strike. One way is to correctly use your equipment and tools. And the second way is to modify work habits, in other words, to avoid undesirable motions, improve your posture, spend less time on certain tasks and take all allowable breaks.

Pay attention to your body so you can correct ergonomic disorders as soon as you detect them. Learn to adjust chairs, keyboards, lighting and other controllable factors for your maximum comfort and health. For instance, an easy way to improve air quality is to add house plants that require low light. With such ergonomic solutions, you can learn to work in harmony with your workplace environment.

Ergonomically Yours

Prevent CTD's when you work at a computer:

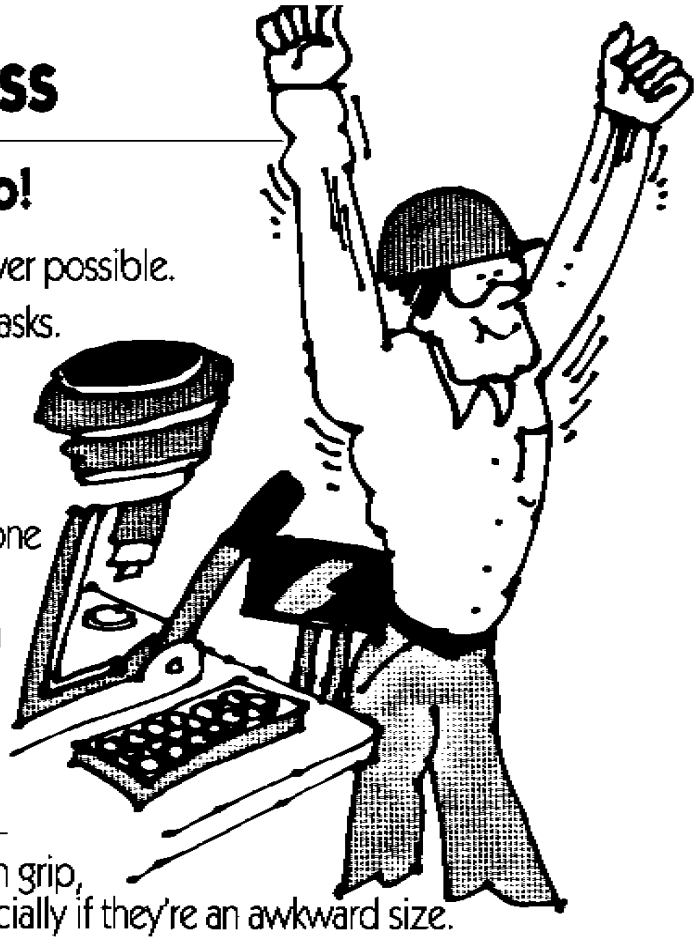
- **Place** video display terminal (VDT) screen about 12 to 18 inches from your face. Angle it so you don't have to strain your neck.
- **Position** VDT's top display line and the top of the document holder just below eye level.



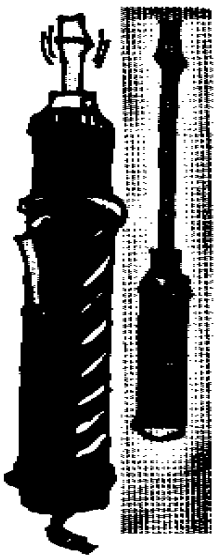
- **Tilt** keyboard so you can reach all keys easily with wrists straight and elbows at a 90-degree angle.
- **Use** a padded wrist rest if you have one.
- **Adjust** your chair for comfort and good posture.
- **Get up** and walk around occasionally.
- **Do** finger stretches every few hours to give your hands a break.

Reducing Risky Business

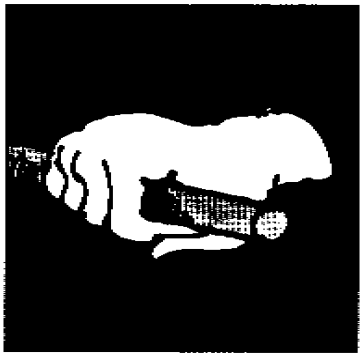
You can practice ergonomics, too!

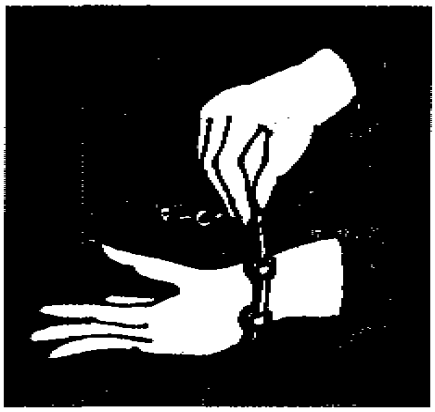


- **Avoid** repetitive movements whenever possible.
- **Take** breaks from repetitive motion tasks.
- **Switch** periodically to easier tasks.
- **Use** your full hand and all fingers to grasp objects.



- **Use** two hands rather than one for a task.
- **Use** power tools rather than manual tools.
- **Set** a pace that's comfortable for you on certain tasks.
- **Carry** materials with a palm-down grip, especially if they're an awkward size.





- **Reduce** the number of repetitive movements in a task.
- **Learn** and follow proper procedures for tasks like lifting, cutting, or handling vibrating tools.
- **Don't** wear clothes, gloves, or jewelry that fit tightly around the wrist.

Know the Symptoms of CTD's:

- Pain or achiness
- Numbness or tingling
- Burning
- Stiffness
- Swelling
- Weakness

Remember: Ignoring symptoms won't make them go away! Seek help early.

Cumulative Trauma Disorders

Cumulative trauma disorders (CTDs), also known as repetitive motion injuries, can slow you down at work, at home and during leisure time. They result from stresses that build up over time in specific joints, tendons and muscles, causing pain or other discomfort.

Office tasks involving the repetitive use of computers, word processors, calculators, photocopiers, postage meters, sorters, rubber stamps, staplers, file cabinets or heavy books can aggravate CTDs. Major stress factors include an incorrect position, posture, force or frequency of an activity. On the other hand, CTDs can be prevented or alleviated by using equipment ergonomically, that is, in a way that exerts the least stress on the affected part of the body.

CTDs are sometimes difficult to identify because everyone responds differently to different physical stresses. Some people feel pain in a short time, others after a long time and some not at all.

The Most Common CTDs

- *Carpal tunnel syndrome*: inflammation of a major nerve in the wrist from repetitive forceful motions while the wrist is misaligned, particularly while using a keyboard.
- *Low back pain* and *tension neck syndrome*: muscular and nerve inflammation in these areas from poor posture and support, sudden twisting or bending motions, improper lifting or carrying, or habitual straining to look at a computer screen.
- *Tendinitis*: inflammation of the muscles and tendons in the elbow, forearm, wrist or hand. It often occurs with *tenosynovitis*, inflammation of the lubricating sheaths surrounding the tendons. Symptoms for both include swelling, tenderness, pain and weakness.
- *Bursitis*: inflammation of the bursa or lubricating sac around bone joints.
- *Rotator cuff injury (shoulder tendinitis)*: inflammation of one or more of the major tendons in the shoulder, limiting shoulder movement.

Make Your Job Fit For You

Follow these work habits to prevent or treat CTDs:

- Adopt an aligned, supported p osture, with your ears, shoulders and hips "stacked" in a straight line.
- Position yourself at your workstation (and position your equipment and tools in relation to you) so that your wrists are kept straight while parallel to the floor.
- Take a break or switch tasks on a regular basis.
- Use only the force or effort needed for a certain task.
- Keep in shape through stretching, exercising, diet and avoiding nicotine. For instance, simple at-your-desk exercises, such as tightening your fists, stretching your fingers and rotating and shaking out your hands, can do wonders if you're at risk for carpal tunnel syndrome.

The earlier you pay attention to a suspected CTD, the more likely you'll be able to do something about it.

CTDs Can Be Controlled

If you suspect you have a CTD, try using ice packs and anti-inflammatory over-the-counter medications, such as aspirin or ibuprofen. If these don't do the trick, consult your doctor. With simple changes in your work environment, working habits and personal fitness program you have a much better chance at beating cumulative trauma disorders.

Prevent Cumulative Trauma Disorders

If you use vibrating tools or those that require excessive force, or you perform repetitive movements, you may be at risk for developing a cumulative trauma disorder (CTD). CTDs affect people in a variety of occupations, from construction and manufacturing workers to those who spend hours typing. It can take months or years before the pain, fatigue and tingling of cumulative trauma disorders appear. If left untreated, some types of CTDs can cause permanent injury.

SYMPTOMS OF CTDs

If your wrists ache, your fingers feel numb at night or you have difficulty performing simple, manual tasks, you may be suffering from a cumulative trauma disorder. These injuries result when the nerves, muscles and tendons in your back and extremities become constricted, irritated, inflamed and swollen. In more serious disorders, such as carpal tunnel syndrome, swollen tendons may press on the main nerve of your hand, causing numbness and pain that can extend into your arms and hands.

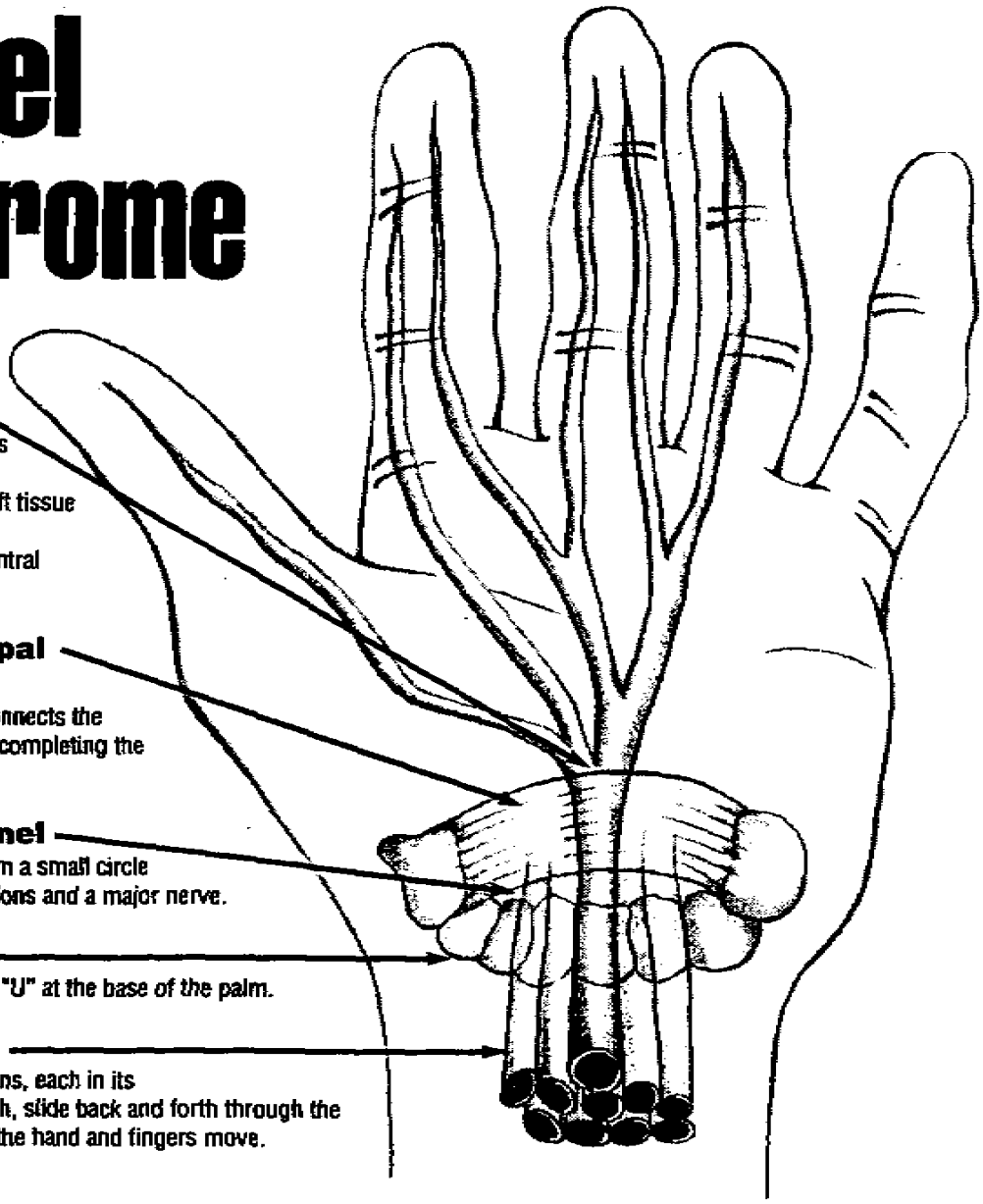
If you experience pain at work or at home after work, tell your supervisor and seek medical attention. The earlier you identify and treat a cumulative trauma problem, the more likely it is that you can prevent it from becoming a serious disability.

MAKE YOUR JOB FIT YOU

You can reduce the risk of cumulative trauma disorders by staying flexible, learning healthier work habits and practicing proper body mechanics on the job.

- ✓ ***Stretch your arms, hands, legs and back for 5 minutes each day before you start work.***
- ✓ ***Place equipment, tools and parts within easy reach.***
- ✓ ***When possible, use mechanical aids, such as vice grips, to complete demanding tasks.***
- ✓ ***Change stressful positions frequently. Take a minute or two every hour to stretch your neck, arms and legs as soon as you feel fatigue, rather than waiting until break time.***
- ✓ ***Use proper body mechanics when lifting, carrying and placing items. Keep your spine vertical, bend at the knees, pivot instead of twisting your body and stay close to the object being moved.***
- ✓ ***Take a short break and shake out your hands once an hour.***
- ✓ ***If you sit while working, use a chair that supports your back and keeps your spine in normal alignment. A well-aligned spine helps your arms function more efficiently.***
- ✓ ***If you use a keyboard, adjust your chair and use ergonomic aids to keep your wrists straight while typing. Position your chair high enough so that your elbows are even with, or slightly higher than, your keyboard.***

Carpal Tunnel Syndrome



Median Nerve
The only nerve that travels through the tunnel along with the tendons. This soft tissue carries sensations from part of the hand to the central nervoussystem.

Transverse Carpal Ligament
A very strong ligament connects the arch of the carpal bones, completing the "tunnel."

The Carpal Tunnel
Bones and a ligament form a small circle through which travel tendons and a major nerve.

Carpal Bones
Eight small bones form a "U" at the base of the palm.

Flexor Tendons
Nine tiny *but* tough tendons, each in its lubricating lining or sheath, slide back and forth through the tunnel as the muscles of the hand and fingers move.

Because bones, ligaments and tendons cannot be compressed, the soft median nerve is the only component in the carpal tunnel that can be pinched. When the lubricating linings around the tendons thicken because of repetitive or too forceful hand movements, the resulting pressure on the nerve causes pain, weakness, numbness, tingling or a burning sensation: carpal tunnel syndrome.

Are You at Risk for Carpal Tunnel Syndrome?

You extend your hand to greet your new supervisor, but when she shakes it, you feel a sharp, burning pain. All the next day your hand and wrist feel numb.

The diagnosis is a shock. You have carpal tunnel syndrome—or CTS. CTS is caused by making the same motion over and over. Packers, painters, assembly-line workers, cashiers and people who work at computer keyboards all day are at risk for developing this condition. CTS is one of the leading claims for workers' compensation.

Why Your Hand Hurts

The carpal tunnel is the bony cavity in your wrist through which nerves and tendons extend to the hand. When you repeat the same hand and wrist movements every day, the strain causes tendons to swell and press on the main nerve of the hand. This persistent nerve irritation can result in pain, numbness and dysfunction, not only in the hand and the wrist, but sometimes extending up to the forearm and elbow.

WHAT YOU CAN DO ABOUT IT

You can minimize the risk of developing CTS by modifying the way you use your hands and arms. Here are some ways to prevent the condition:

- ✓ Try to keep your wrists straight while working. Avoid using your wrists in a twisted position for long periods of time.
- ✓ When possible, reduce repetitive tasks. Even simple tasks can eventually cause injury when repeated over and over.
- ✓ Avoid movements that require holding an object the same way for long periods of time.
- ✓ Slow down and use only enough force to control hand tools. This gives your hand time to recover from each effort.
- ✓ Watch your grip. Using just the thumb and index finger can put pressure on your wrist. When practical, use your whole hand to grasp an object.
- ✓ Give your hands a break from time to time. Alternate the easy and hard jobs or switch hands.
- ✓ Do gentle hand stretches for one minute every hour.
- ✓ Take action early if you notice symptoms; don't wait for them to become unbearable. The earlier you have a professional diagnosis, the more successful the treatment.

Surgical Techniques Speed CTS Recovery

When diagnosed early, CTS can be treated by stopping the repetitive motion and splinting the wrist. However, more serious cases may require surgery to relieve the pressure on the nerve.

A surgical procedure, using an endoscopic instrument similar to that used for knee surgery, allows those with CTS to return to work in less than a month—about half the time required by conventional surgery.

SIDESTEPPING
Carpal Tunnel Syndrome

Carpal tunnel syndrome, or CTS, a nerve disorder of the wrist, now accounts for about half of all occupational injuries. The reasons? Improper posture and wrist positions along with forceful motions while using computers.

In "the old days," when most office workers used typewriters, they took periodic breaks to change the paper or the ribbon, things most modern workers don't need to do. Such breaks rested the wrists, preventing repetitive motion injury. Today's computers and programs also often require the operator to perform tasks at a higher rate of speed and more frequently than on typewriters.

Here are some therapies to prevent, counteract or treat carpal tunnel syndrome:

- Squeeze your hands into fists or around a foam ball and rotate them from the wrist in one direction 15 times. Then stretch out your fingers as far apart as possible and rotate your hands again 15 times in the same direction.
- Extend one hand as if shaking hands and gently pull back on your thumb with the other hand. Hold for five seconds. Repeat up to five times and change hands. Then extend one hand and gently pull your thumb *down* toward your palm for five seconds. Repeat up to five times and change hands.
- Take aspirin or ibuprofen. Both reduce pain and inflammation.
- In severe cases put ice compresses on your wrists at home for about 20 minutes at a time, with 10-minute breaks, until the inflammation and swelling subside.

What Is CTS?

Tendons in the wrist run through a circle of bones and ligaments in the wrist called the "carpal tunnel." Repetitive motions without adequate recovery time can cause the inflammation, swelling and scarring of these tendons. Swollen tendons press on the median nerve, which also runs through the carpal tunnel. The result is pain, weakness, tingling, numbness or a burning sensation in the wrist, palm and fingers. Pain may even extend up to the forearm, elbow, shoulders, neck and upper back.

Preventing CTS

The best way to prevent CTS—and to relieve it once it strikes—is to work with your forearms, from your elbows to your fingers, in a straight line. This places less pressure on the nerves and tendons in your wrists. To accomplish this, adjust the height of your chair and keyboard so that, when your elbows are bent at a right angle, your forearms are parallel with the floor. Keep your feet flat on the floor or on a foot stool. With your low back supported against your chair, "stack" your ears, shoulders and hips in a straight line.

Get up about every hour and briefly stretch your back, neck, arms, hands and wrists, even if you don't feel much tension or strain at the time. And take all the breaks you're entitled to.

Vary your activities, if possible, or rest your wrists completely, perhaps by reading a report or attending a meeting. Use a wrist pad to rest your wrists on, rather than resting them on the keyboard. This type of pad runs along the lower edge of the keyboard. Even a small rolled up towel will do.

If you smoke, cut down on (or cut out) the habit. Nicotine constricts small blood vessels and can make it more difficult for your wrist to heal.

Carpal tunnel syndrome often goes away if you catch it early and change your work habits. Otherwise, it may require months or even years of treatment and occasionally even calls for surgery. To be safe, see a doctor if symptoms last one or two weeks.

Tennis Elbow at Work?

Protecting Yourself From Tendinitis

Even if you've never played tennis, golf or any other sport, you can develop tennis elbow, a type of tendinitis.

Tendinitis is a painful inflammation of one or more tendons, the tough elastic bands that anchor muscles to the bones. It is one of the most common "cumulative trauma disorders" (CTDs), injuries that result from repeated actions. Overuse or misuse of the forearm muscles in the office can cause tennis elbow, though weekend tennis games or home repair projects can aggravate the condition.

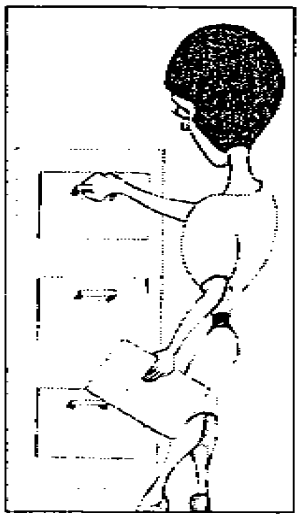
Besides tennis elbow, types of tendinitis include golfer's elbow, thumb/wrist tendinitis and trigger finger (the inability to straighten a finger).

Like other CTDs, tendinitis can be prevented or at least improved by examining how you do things. Are you putting excessive repetitive stress on some of your tendons?

Avoiding Tendinitis in the Office

How you grasp things in the office—and how often—can determine whether or not tendinitis will strike:

- If your job entails pulling out file drawers frequently, grasp the handles with as much of your hand as possible rather than "pinching" the handles with your fingertips. This will distribute the effort more evenly and reduce the leverage working against the tendons.
- If you're constantly pulling heavy manuals or binders off shelves, keep them upside down until you need them. Then tip the top of the manual toward you so that it flips into the correct position, ready to be referred to without straining your hand. Better yet, if there's room on or near your desk, keep heavy, oft-consulted books on a large "lazy Susan" or similar rotating carousel.
- If you're a receptionist with a sliding glass window separating you from the reception area, and the window is out of reach, use a strong but light stick to open and close the window, rather than stretching to do so.
- When getting lunch in a cafeteria, slide your tray to the next food selection rather than carry it.
- If your office recycles items that can get heavy when they accumulate, keep them in several smaller boxes rather than in one large bin or bag.
- If you have a lot of rubber stamping to do, enlarge the handle with wads of paper held in place by tape or rubber bands so you can get a better grip on it.
- If you often file mail or other papers into dividers, containers or slots, position yourself or the receptacles so that you don't have to bend your wrist or keep raising your arm above shoulder height.

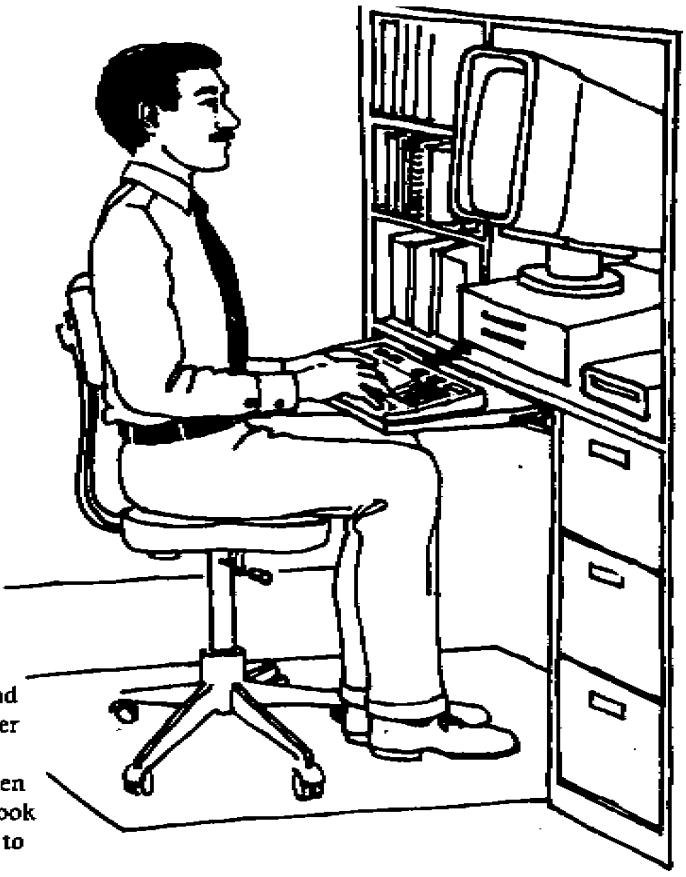


Preventing and Treating Tendinitis

You can usually avoid tendinitis by distributing your effort to more muscles and getting better leverage.

The first step in treating tendinitis is to either stop or change the activity causing it. If rest doesn't help, try an ice bag over the painful area or take anti-inflammatory pain relievers, such as aspirin or ibuprofen. Your doctor may also prescribe an elastic bandage and special exercises.

Taking Advantage Of Ergonomic Furniture and Equipment



Some older types of furniture and equipment may have contributed to physical stress, trauma and injuries in the past. So engineers have designed ergonomic furniture and accessories that are safe, functional, attractive and comfortable. The trick is in using this "future furniture" to its best advantage.

Your Chair

In an ergonomically designed chair sit in a neutral relaxed position so that you're not straining any part of your body. Your hips will be slightly higher than your knees. Most modern office chairs allow you to adjust the seat height and the position of the back rest. Some also come with a firmness adjuster in the back.

To reduce excessive pressure on the lower back and under the thighs, rest your feet flat on the floor or on a footrest. Keep the small of your back supported by the chair back. If the chair is too deep to achieve this, use a smaller chair. One size may not fit all.

Your chair is at a proper height when your hands are at your keyboard and your elbows are at a right angle, with the forearms parallel to the floor. Your hands should be in a reasonably straight line with your forearms.

If you opt for one of the new kneeling chairs with no back support, raise your work surface to relieve back strain. These chairs are ideal for frequent alternating between sitting and standing.

Your Computer Monitor

Keep your monitor close enough so that you won't crane your head and neck forward to peer at it. Adjust the height of your screen so that your eyes look slightly downward to view it.

Turn your monitor at a right angle to windows and other direct light sources. Facing a window while working or working with your back to a strong light source can cause too much glare. If, on the other hand, your office lighting is too dark for your taste, ask if you could bring a small adjustable lamp to work.

If your coworkers agree, adjust window blinds or curtains to reduce outside glare. If your screen swivels or tilts, adjust it periodically to avoid glare. Also keep books and files away from the sides of your monitor, both to allow you to adjust it and to keep it from overheating.

Accessories

If glare on your monitor remains a problem, consider getting an *antiglare filter* that covers your screen.

Placing a *keyboard platform* under your keyboard allows you to adjust its height to whatever is most comfortable for your hands.

Wrist pads can support tired or overstretched wrists and help keep your hands straight while typing. Some models are attached to a platform that slips under the keyboard to keep the pads stable.

If you need to type or read from files or books, keep them the same distance and height as your screen. Prop them up in a *document holder* or a *bookstand*.

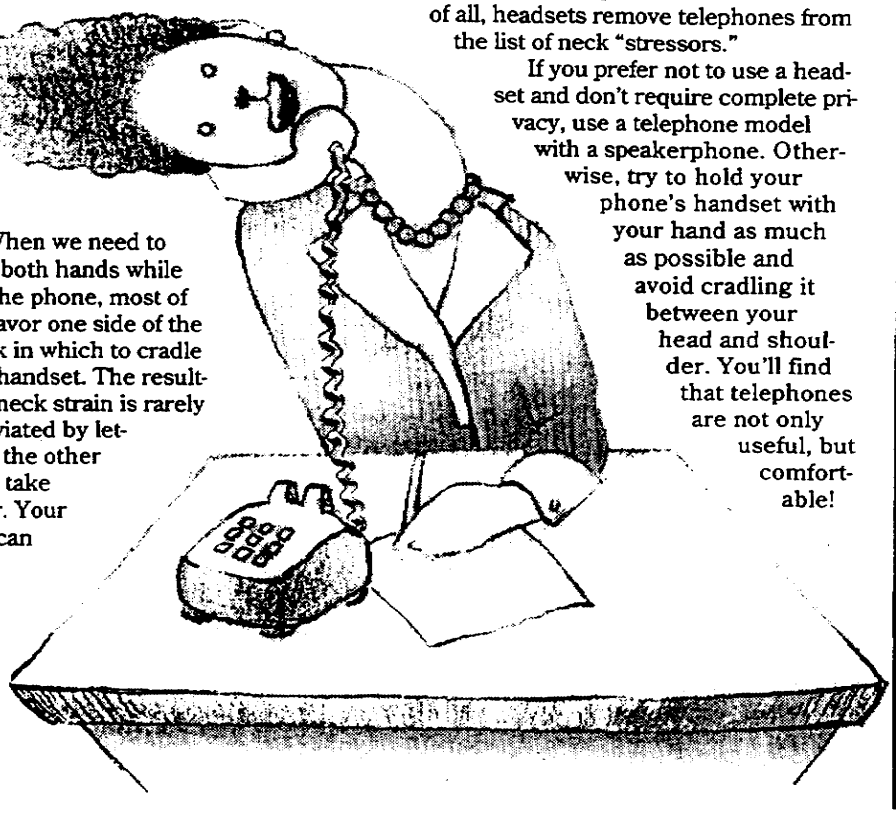
Finally, noise from an impact printer can be baffled by a *printer shield* if the printer cannot be isolated in another room.

With the proper use of ergonomically designed furniture and equipment you can pleasantly avoid most of the physical strains and pitfalls of modern office work—and get a lot more done in the process.

Telephones And Your Neck

Hands On or Hands Off?

Fewer devices have made our lives easier and more productive than the telephone. However, like just about any modern convenience, telephones have their drawbacks. One of the most unwelcome "byproducts" of frequent telephone use is neck cramps. These painful muscle spasms can strike both when cradling the handset between your head and shoulder and when using a shoulder-rest attachment. Or your neck muscles may feel sore or tense. Neck tension can also be the source of headaches, dizziness and nausea, as well as pain, tingling or numbness in the fingers, arms and shoulders.



When we need to use both hands while on the phone, most of us favor one side of the neck in which to cradle the handset. The resulting neck strain is rarely alleviated by letting the other side take over. Your ear can also get uncomfortably hot and feel "crushed" by prolonged pressure from the handset.

Newer telephones with smaller handsets have only made the problem worse. And the phone-induced pain in your neck may be aggravated by stretching your neck forward to look at a computer screen for long periods or by sleeping with your head at an awkward angle.

Instant Relief

Consider using a headset. They can be easily attached to any phone and are feather-weight and adjustable to fit any size head. Most headsets have a volume adjustment and allow you to switch to your usual handset at any time. They can be moved to any phone—and still allow you to keep both hands free. Best of all, headsets remove telephones from the list of neck "stressors."

If you prefer not to use a headset and don't require complete privacy, use a telephone model with a speakerphone. Otherwise, try to hold your phone's handset with your hand as much as possible and avoid cradling it between your head and shoulder. You'll find that telephones are not only useful, but comfortable!

Relief From Neck Tension and Pain

Stretches

- Drop your chin to your chest, then let gravity pull your head as far as is comfortable for about 30 seconds.
- Tilt your head as far as is comfortable toward one shoulder and hold for a moment. Repeat on both sides 5–10 times.
- Tilt your head back slowly until you can look at the ceiling. Hold that position while you open and close your mouth several times. Return slowly to an upright position and repeat 5–10 times.

Resistance exercises

- Place your palms against your forehead. As you press your head toward your palms, push back—or resist—with your hands. Relax and repeat 5–10 times.
- Place both hands behind your head. Press your head back while at the same time you resist with your hands. Relax and repeat 5–10 times.
- Place one hand on the side of your head. As you resist with your hand, press your head toward your shoulder. Repeat 5–10 times. Do the same exercise on the other side.

Other treatments

- Apply cold compresses or an ice bag over muscle spasms or "knots."
- Use a heating pad or hot moist towel over tense muscles. (Heat can aggravate symptoms if done too long, so check with your doctor first.)
- Take aspirin or ibuprofen.
- Give yourself a neck rub or get a shoulder and neck massage.

This information is not intended as a substitute for professional health care. Always follow your physician's advice.

Stretch at Work

Guard Against Repetitive Motion Disorders

Anyone who works with a jackhammer, bends over a conveyor belt or performs other repeated movements at work is at risk for developing repetitive motion disorders. You may feel the symptoms of these injuries in your hands and arms. Repetitive motion disorders originate in your muscles and nerves.

These four stretches can help keep your back and arms flexible and supple and guard against repetitive motion disorders. These exercises can be adapted to any workplace, whether you work inside or outside.

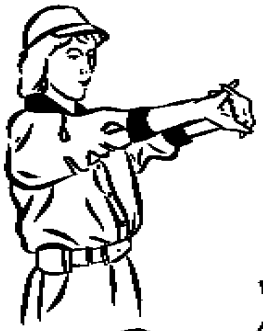
NERVE STRETCH

Right Side

1. Stand arm's distance with your right shoulder perpendicular to a wall, truck, tree or post.
2. Straighten your right arm. Place your palm on the wall with your fingers pointing toward the ceiling in a 12 o'clock position.
3. Straighten your elbow and press lightly against the wall with your hand. Keep your hand in this position for 20 seconds.
4. Point your fingers toward the floor in a 6 o'clock position. Press lightly with your palm. Keep this position for 20 seconds.
5. Move your fingers toward the back of your body in a 3 o'clock position. Hold this position for 20 seconds.

Left Side

1. Stand arm's distance with your left shoulder perpendicular to a wall.
2. Repeat the same stretches with your arm in 12 o'clock, 6 o'clock and 9 o'clock positions.



CROSS FINGER STRETCH

1. In a standing position, extend arms in front of your body from the shoulders.
2. Lace fingers together and turn palms outward.
3. Stretch your arms forward. Hold the stretch for 10 seconds.
4. Repeat the stretch on your right and left sides.

WINDMILL

1. Stand in a straight, but relaxed, position.
2. Extend your right arm up at a 45-degree angle and your left arm pointing down at a 45-degree angle.
3. Gently stretch your arms in opposite directions. You should be able to feel a gentle stretch between your shoulder blades.

SIDE BEND

1. Stand tall and clasp your hands above your head.
2. Take a deep breath and stretch your arms toward the ceiling.
3. Bend slowly to one side and hold briefly.
4. Return to the start position.

Sitting Pretty

Good Posture Boosts Energy!

You may think that it's more comfortable and restful to slouch while using your keyboard or to lean on your desk with your elbows while reading. But in the long run, it isn't.

In fact, poor posture, the stress of leaning over paperwork and straining to peer at computer screens may eventually cause you to experience muscle tension, stiffness, backaches, neck cramps and fatigue. Such habits can even lead to more serious problems, such as spine disorders or pinched nerves.

Posture Problems

Slouching can overstretch the ligaments that support your spine, causing backache and fatigue. Cradling a telephone handset between your head and shoulder can give you a stiff, sore neck. Sitting in one position for long periods (an aspect of posture many people overlook) can reduce circulation in your muscles, increasing fatigue and stiffness and setting you up for injury.

The Principles Of Good Posture

Here are the major components of healthy—and energizing—posture:

- Whether sitting or standing, keep your ears, shoulders and hips "stacked" in a straight line. This will keep the three natural curves of your spine in their normal, balanced alignment.
- Adjust your chair height so that your feet are flat on the floor or, if you're a shorter person, on a foot stool. Avoid crossing your legs. Slide your chair under your desk or workstation so that you won't have to lean too far forward. If your chair is at a comfortable height, your knees will be level with or slightly lower than your hips. Support your low back with the back of your chair. If further support is needed, use a cushion, lumbar roll or rolled up towel and place it in the small of your back.
- *Place books and papers you need to* read or type from in a book stand or document holder the same distance from you as your computer screen. Raise or lower such documents as well as your computer screen so that the tops of each are at or slightly below eye level.
- Instead of cradling a phone handset between your head and shoulder, use a headset or speakerphone or simply hold it to your ear with a free hand.
- Take stretch breaks about once an hour. Avoid getting "hypnotized" by your computer screen for hours at a time. Stand up, breathe deeply, stretch and shake out the kinks. Just a few minutes an hour should get your circulation going and keep you limber.

Doing It the Right Way

You may accomplish a lot at work *in spite of* bad posture, but you'll get a surprising energy boost and be able to accomplish even more when you practice good posture. And good posture applies not only while sitting, but also while standing, bending, lifting or reaching. Good posture contributes to deep breathing, healthy organ function and good circulation—all great energy boosters. It may take a little practice, but the return in comfort and energy will go a long way toward helping you look and feel your best.